



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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Governor

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April 17, 2001

## CERTIFIED RETURN RECEIPT

7000 0520 0021 7582 8951

Gayle McKeachnie

McKeachnie, Allred, McClelland & Trotter

Consultant for Ziegler Chemical & Mineral Corporation

121 West Main Street

Vernal, Utah 84078

Re: Reclamation Cost Estimate 5-Year Review Comments, Ziegler Chemical & Mineral Corporation, Ziegler Gilsonite Operations, M/047/013, Uintah County, Utah

Dear Mr. McKeachnie:

Thank you for the Ziegler comments received January 24, 2001, which refer to the Division's draft reclamation cost estimate of November 2000. The comments were in the form of a marked up copy of the Division's draft estimate. We realize this detailed cost estimate for the entire operation is lengthy and required a considerable amount of time to review. We appreciate your efforts to provide detailed comments so we may arrive at a more accurate estimate.

We have prepared a revised reclamation estimate (copy attached) reflecting the new information provided by Ziegler that we could accept. Changes in the estimate are highlighted with shading. Ziegler information we could not accept is described below with justification for the rejection, or with a request for additional information to justify acceptance. Please review these comments and the cost estimate and indicate acceptance or provide corrections within 90 days or by July 16, 2001.

In addition, please review and provide comments on the Mine Site Location Table, and Mine Sites Bonding Table, which were included with the Division's November 29, 2000 letter. Please provide a comment acknowledging the information for each site is accurate, or provide corrections regarding the status of the mine site, acreage, etc.

### COMMENTS ON THE ZIEGLER MARKED UP ESTIMATE

#### INDEPENDENT 2

Ziegler indicated there is no need for a dump truck and operator in the reclamation of this site. The omission of this line item is also suggested for nearly all the other satellite mine sites as well. The Ziegler estimate of July 17, 2000, for reclamation of site I-2 included a line item for a truck and trailer at a total cost of \$800. The Division's line item of a truck and operator was

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intended to reflect this line item. Please explain why a line item for a truck and operator should not be included in this estimate and the other mine sites.

A modification to the line item for the seed mix cost suggests a seeding rate of 12 lb/acre at a cost of \$36.25/lb for this site and nearly all the other mine sites. This equates to a cost of \$435/acre for seed. The Division recommended a 12.5 lb/acre seed mix for the ZI-95-1 site in February 1996, which was later proposed for the Shaft 8 Amendment in an August 3, 1998 letter. Please clarify whether the 12 lb/acre seed mix was intended to reflect the Division's proposed seed mix, and provide a current price quote to support this \$/lb cost.

A modification to the line item for fertilizer suggests a cost of \$0.14/lb for this site and nearly all the other sites. Please provide a current price quote to support this unit cost for fertilizer.

#### INDEPENDENT 3

The Division will modify the estimate for this site to reflect the absence of surface structures. Please provide a current quote or pricing information to support the fertilizer cost of \$28/ton at a local IFA store.

#### INDEPENDENT 4

The Division will modify the estimate for this site to reflect the structural removal costs for the headframe derrick as suggested by Ziegler. Please provide justification for the suggested omission of the two line items under the Earthwork and Grading section (dump truck and operator, dozer and operator).

#### INDEPENDENT 5

LITTLE BONANZA 1  
LITTLE BONANZA 3  
LITTLE BONANZA 8

#### LITTLE BONANZA 8A

The Division will modify the estimate for this site to reflect the absence of surface structures. Please explain whether the expanded metal cover over the shaft collar will require a different set of reclamation tasks than what is shown for this site.

LITTLE BONANZA 11  
LITTLE BONANZA 12

#### MAIN #1

The Division will modify the estimate for this site to reflect the absence of structural removal costs. Please describe the tasks completed to date at this site in preparation for final reclamation

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to justify the omission of three of the line items under the Earthwork & Grading section of the estimate.

#### MAIN #2

The Division will modify the estimate for this site to reflect the absence of structural removal costs and concrete capping costs.

#### LITTLE EMMA -1 MIDDLE

##### LITTLE EMMA 7

This site will need to be inspected during this spring for final reclamation release.

#### COTTONWOOD 1 & 2 and COTTONWOOD 3

Our files do not have documented site inspections for final release of these sites on State Land (ML-20781, ML-19868, ML-20779). Information from SITLA indicates the Ziegler leases for these sites have been terminated and the bonds released. Division files do not include documentation of a transfer from Ziegler to Lexco. Without a formal permit transfer, the change in leaseholder does not necessarily change the reclamation responsibility for the site. In order to release these sites and omit them from the cost estimate we will need a documented site inspection by Division and/or SITLA staff.

Assignment of a new lease to Lexco (ML-46785) for the same area previously leased by Ziegler may not pose a reclamation estimate problem, provided documentation of site reclamation or site conditions prior to issuance of the new lease is available. Please provide any additional background regarding the release of these sites.

#### COWBOY 1 FEDERAL

##### COWBOY - LOTS 2-1

##### COWBOY SECTIONS 4-3

#### COWBOY NORTH VEIN - 1

The Division will recognize BLM bonding for this site when a specific amount in the statewide bond has been identified for reclamation of this site. The capping costs for this site have been modified based on Ziegler's comments.

#### ZI-95-1

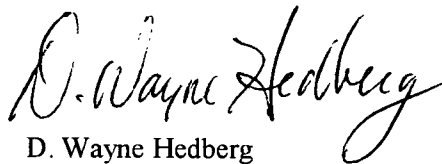
The absence of structures and a shaft opening at this site will need to be verified by a site inspection. If Ziegler intends to construct these features at this site in the immediate future (within the next five years), then the omission of structure and shaft reclamation costs for this site would not be appropriate.

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## PROCESSING FACILITIES

If you have any questions regarding this letter or wish to arrange a time and date to schedule a site inspection, please contact me at (801) 538-5286, or Tony Gallegos at (801) 538-5267.

Sincerely,

A handwritten signature in black ink, reading "D. Wayne Hedberg". The signature is fluid and cursive, with the first name "D." and last name "Hedberg" clearly legible.

D. Wayne Hedberg  
Permit Supervisor  
Minerals Reclamation Program

jb

Attachment: Division Reclamation Estimate – version April 12, 2001

cc: Chip Ziegler, Executive Vice President, Ziegler Chemical & Mineral Corporation  
Stan Wagner, Ziegler Gilsonite Mines  
Stan Perkes, BLM State Office  
Pete Sokolosky, BLM Vernal FO  
Will Stokes, SITLA

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-Hours & acreage in this estimate are from the 1987 surety estimate & Ziegler 1-23-01 information.

-Unit costs in this estimate are from the Means Heavy Construction Cost Data 2000 & Rental Rate Blue Book.

-Productivity (# units) & tasks for I-2 reclamation were used as a template for the other site calculations.

INDEPENDENT 2		1.4 acre		PATENTED	
<u>Structural Removal</u>		# units	units	\$/unit	\$
50 ton crane+operator+oiler		10	hrs	244.21	2,442
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
welder (equip)+welder+helper		10	hrs	111.74	1,117
electrician		20	hrs	49.35	987
pickup truck		10	hrs	22.08	221
<u>Earthwork &amp; Grading</u>					
front end loader & operator		0	hrs	110.18	0
motor grader & operator		10	hrs	96.83	968
dump truck & operator		10	hrs	90.88	909
backhoe & operator		10	hrs	87.97	880
dozer & operator		8	hrs	226.10	1,809
<u>Capping</u>					
concrete (in CY)		4	CY	90.00	360
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
forms, etc. (SUM)		1	sum	250.00	250
rebar (SUM)		1	sum	100.00	100
<u>Revegetation</u>					
tractor + drill + operator		1.4	acre	83.45	117
seed mix		1.4	acre	160.00	224
fertilizer @ 200 lb/acre		1.4	acre	100.00	140
Subtotal for this site					\$12,624
Avg. cost per acre		\$9,017			

INDEPENDENT 3		1.38 acre			
<u>Structural Removal - NONE</u>		# units	units	\$/unit	\$
50 ton crane+operator+oiler		0	hrs	244.21	0
2 laborers @ 15 hrs/each		0	hrs	35.00	0
welder (equip)+welder+helper		0	hrs	111.74	0
electrician		0	hrs	49.35	0
pickup truck		0	hrs	22.08	0
<u>Earthwork &amp; Grading</u>					
front end loader & operator		0	hrs	110.18	0
motor grader & operator		10	hrs	96.83	968
dump truck & operator		10	hrs	90.88	909
backhoe & operator		10	hrs	87.97	880
dozer & operator		8	hrs	226.10	1,809
<u>Capping</u>					
concrete (in CY)		4	CY	90.00	360
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
forms, etc. (SUM)		1	sum	250.00	250
rebar (SUM)		1	sum	100.00	100
<u>Revegetation</u>					
tractor + drill + operator		1.38	acre	83.45	115
seed mix		1.38	acre	160.00	221
fertilizer @ 200 lb/acre		1.38	acre	100.00	138
Subtotal for this site					\$6,800
Avg. cost per acre		\$4,927			

<b>INDEPENDENT 4</b>	<b>1.41</b>	<b>acre</b>			
<b>Structural Removal</b>		<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler		4	hrs	244.21	977
2 laborers @ 15 hrs/each		4	hrs	35.00	140
welder (equip)+welder+helper		2	hrs	111.74	223
electrician		0	hrs	49.35	0
pickup truck		0	hrs	22.08	0
<b>Earthwork &amp; Grading</b>					
front end loader & operator		0	hrs	110.18	0
motor grader & operator		10	hrs	96.83	968
dump truck & operator		10	hrs	90.88	909
backhoe & operator		10	hrs	87.97	880
dozer & operator		8	hrs	226.10	1,809
<b>Capping</b>					
concrete (in CY)		4	CY	90.00	360
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
forms, etc. (SUM)		1	sum	250.00	250
rebar (SUM)		1	sum	100.00	100
<b>Revegetation</b>					
tractor + drill + operator	1.41	acre		83.45	118
seed mix	1.41	acre		160.00	226
fertilizer @ 200 lb/acre	1.41	acre		100.00	141
Subtotal for this site					\$8,150
Avg. cost per acre		\$5,780			

<b>INDEPENDENT 5</b>	<b>1.2</b>	<b>acre</b>			
<b>Structural Removal</b>		<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler		10	hrs	244.21	2,442
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
welder (equip)+welder+helper		10	hrs	111.74	1,117
electrician		20	hrs	49.35	987
pickup truck		10	hrs	22.08	221
<b>Earthwork &amp; Grading</b>					
front end loader & operator		0	hrs	110.18	0
motor grader & operator		10	hrs	96.83	968
dump truck & operator		10	hrs	90.88	909
backhoe & operator		10	hrs	87.97	880
dozer & operator		8	hrs	226.10	1,809
<b>Capping</b>					
concrete (in CY)		4	CY	90.00	360
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
forms, etc. (SUM)		1	sum	250.00	250
rebar (SUM)		1	sum	100.00	100
<b>Revegetation</b>					
tractor + drill + operator	1.2	acre		83.45	100
seed mix	1.2	acre		160.00	192
fertilizer @ 200 lb/acre	1.2	acre		100.00	120
Subtotal for this site					\$12,555
Avg. cost per acre		\$10,463			

**LITTLE BONANZA 1(vent shaft) 0.5 acre VERIFY RECLAIMED 2.11 ACRES**

**Structural Removal**

	# units	units	\$/unit	\$
50 ton crane+operator+oiler	0	hrs	244.21	0
2 laborers	0	hrs	35.00	0
welder (equip)+welder+helper	0	hrs	111.74	0
electrician	0	hrs	49.35	0
pickup truck	5	hrs	22.08	110

**Earthwork & Grading**

front end loader & operator	0	hrs	110.18	0
motor grader & operator	5	hrs	96.83	484
dump truck & operator	5	hrs	90.88	454
backhoe & operator	5	hrs	87.97	440
dozer & operator	4	hrs	226.10	904

**Capping**

concrete (in CY)	4	CY	90.00	360
2 laborers	20	hrs	35.00	700
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100

**Revegetation**

tractor + drill + operator	0.5	acre	83.45	42
seed mix	0.5	acre	160.00	80
fertilizer @ 200 lb/acre	0.5	acre	100.00	50

Subtotal for this site \$3,975

Avg. cost per acre \$7,950

**LITTLE BONANZA 3 1.14 acre STATE LANDS (PATENTED?)**

**Structural Removal**

	# units	units	\$/unit	\$
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
electrician	20	hrs	49.35	987
pickup truck	10	hrs	22.08	221

**Earthwork & Grading**

front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809

**Capping**

concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100

**Revegetation**

tractor + drill + operator	1.14	acre	83.45	95
seed mix	1.14	acre	160.00	182
fertilizer @ 200 lb/acre	1.14	acre	100.00	114

Subtotal for this site \$12,534

Avg. cost per acre \$10,995

LITTLE BONANZA 8		1.60	acre	ASSUMED ACREAGE - PATENTED	
Structural Removal		# units	units	\$/unit	\$
50 ton crane+operator+oiler		10	hrs	244.21	2,442
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
welder (equip)+welder+helper		10	hrs	111.74	1,117
electrician		20	hrs	49.35	987
pickup truck		10	hrs	22.08	221
Earthwork & Grading					
front end loader & operator		0	hrs	110.18	0
motor grader & operator		10	hrs	96.83	968
dump truck & operator		10	hrs	90.88	909
backhoe & operator		10	hrs	87.97	880
dozer & operator		8	hrs	226.10	1,809
Capping					
concrete (in CY)		4	CY	90.00	360
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
forms, etc. (SUM)		1	sum	250.00	250
rebar (SUM)		1	sum	100.00	100
Revegetation					
tractor + drill + operator		1.6	acre	83.45	134
seed mix		1.6	acre	160.00	256
fertilizer @ 200 lb/acre		1.6	acre	100.00	160
		Subtotal for this site		\$12,692	
Avg. cost per acre		\$7,933			

LITTLE BONANZA 8A		1	acre	ESCAPEWAY/VENTILATION	
Structural Removal - NONE		# units	units	\$/unit	\$
50 ton crane+operator+oiler		0	hrs	244.21	0
2 laborers		0	hrs	35.00	0
welder (equip)+welder+helper		0	hrs	111.74	0
electrician		0	hrs	49.35	0
pickup truck		0	hrs	22.08	0
Earthwork & Grading					
front end loader & operator		0	hrs	110.18	0
motor grader & operator		10	hrs	96.83	968
dump truck & operator		10	hrs	90.88	909
backhoe & operator		10	hrs	87.97	880
dozer & operator		8	hrs	226.10	1,809
Capping					
concrete (in CY)		4	CY	90.00	360
2 laborers @ 15 hrs/each		30	hrs	35.00	1,050
forms, etc. (SUM)		1	sum	250.00	250
rebar (SUM)		1	sum	100.00	100
Revegetation					
tractor + drill + operator		1	acre	83.45	83
seed mix		1	acre	160.00	160
fertilizer @ 200 lb/acre		1	acre	100.00	100
		Subtotal for this site		\$6,669	
Avg. cost per acre		\$6,669			



<b>LITTLE BONANZA 11</b>	<b>1.01</b>	<b>acre</b>		
<b>Structural Removal</b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
electrician	20	hrs	49.35	987
pickup truck	10	hrs	22.08	221
<b>Earthwork &amp; Grading</b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<b>Capping</b>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<b>Revegetation</b>				
tractor + drill + operator	1.01	acre	83.45	84
seed mix	1.01	acre	160.00	162
fertilizer @ 200 lb/acre	1.01	acre	100.00	101
Subtotal for this site				\$12,490
Avg. cost per acre		\$12,366		

<b>LITTLE BONANZA 12</b>	<b>1.51</b>	<b>acre</b>		
<b>Structural Removal</b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
electrician	20	hrs	49.35	987
pickup truck	10	hrs	22.08	221
<b>Earthwork &amp; Grading</b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<b>Capping</b>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<b>Revegetation</b>				
tractor + drill + operator	1.51	acre	83.45	126
seed mix	1.51	acre	160.00	242
fertilizer @ 200 lb/acre	1.51	acre	100.00	151
Subtotal for this site				\$12,662
Avg. cost per acre		\$8,385		

MAIN #1	1	acre	BLM	VENT SHAFT	
<u>Structural Removal - NONE</u>	<u># units</u>	<u>units</u>	<u>\$/unit</u>	<u>\$</u>	
50 ton crane+operator+oiler	0	hrs	244.21	0	
2 laborers	0	hrs	35.00	0	
welder (equip)+welder+helper	0	hrs	111.74	0	
electrician	0	hrs	49.35	0	
pickup truck	0	hrs	22.08	0	
<u>Earthwork &amp; Grading</u>					
front end loader & operator	0	hrs	110.18	0	
motor grader & operator	10	hrs	96.83	968	<=
dump truck & operator	10	hrs	90.88	909	<=
backhoe & operator	10	hrs	87.97	880	
dozer & operator	8	hrs	226.10	1,809	<=
<u>Capping</u>					
concrete (in CY)	4	CY	90.00	360	
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050	
forms, etc. (SUM)	1	sum	250.00	250	
rebar (SUM)	1	sum	100.00	100	
<u>Revegetation</u>					
tractor + drill + operator	1	acre	83.45	83	
seed mix	1	acre	160.00	160	
fertilizer @ 200 lb/acre	1	acre	100.00	100	
Subtotal for this site				\$6,669	
Avg. cost per acre		\$6,669			

MAIN #2	1	acre	PATENTED	VENT SHAFT	
<u>Structural Removal - NONE</u>	<u># units</u>	<u>units</u>	<u>\$/unit</u>	<u>\$</u>	
50 ton crane+operator+oiler	0	hrs	244.21	0	
2 laborers @ 15 hrs/each	0	hrs	35.00	0	
welder (equip)+welder+helper	0	hrs	111.74	0	
electrician	0	hrs	49.35	0	
pickup truck	0	hrs	22.08	0	
<u>Earthwork &amp; Grading</u>					
front end loader & operator	0	hrs	110.18	0	
motor grader & operator	10	hrs	96.83	968	
dump truck & operator	10	hrs	90.88	909	
backhoe & operator	10	hrs	87.97	880	
dozer & operator	8	hrs	226.10	1,809	
<u>Capping - CAPPED</u>					
concrete (in CY)	0	CY	90.00	0	
2 laborers @ 15 hrs/each	0	hrs	35.00	0	
forms, etc. (SUM)	0	sum	250.00	0	
rebar (SUM)	0	sum	100.00	0	
<u>Revegetation</u>					
tractor + drill + operator	1	acre	83.45	83	
seed mix	1	acre	160.00	160	
fertilizer @ 200 lb/acre	1	acre	100.00	100	
Subtotal for this site				\$4,909	
Avg. cost per acre		\$4,909			

<b>LITTLE EMMA -1 MIDDLE</b>	<b>1.10</b>	<b>acre</b>		
<b>Structural Removal</b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
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pickup truck	10	hrs	22.08	221
<b>Earthwork &amp; Grading</b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<b>Capping</b>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<b>Revegetation</b>				
tractor + drill + operator	1.1	acre	83.45	92
seed mix	1.1	acre	160.00	176
fertilizer @ 200 lb/acre	1.1	acre	100.00	110
Subtotal for this site				\$12,521
Avg. cost per acre		\$11,382		

<b>LITTLE EMMA -7</b>	<b>1.1</b>	<b>acre</b>	<b>RECLAIMED ~1996 - INSPECT FOR RELEASE</b>	
<b>Structural Removal - NONE</b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	0	hrs	244.21	0
2 laborers @ 15 hrs/each	0	hrs	35.00	0
welder (equip)+welder+helper	0	hrs	111.74	0
electrician	0	hrs	49.35	0
pickup truck	0	hrs	22.08	0
<b>Earthwork &amp; Grading</b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<b>Capping</b>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<b>Revegetation</b>				
tractor + drill + operator	1.1	acre	83.45	92
seed mix	1.1	acre	160.00	176
fertilizer @ 200 lb/acre	1.1	acre	100.00	110
Subtotal for this site				\$6,703
Avg. cost per acre		\$6,094		

<b>COTTONWOOD 1 &amp; 2</b>	<b>1.24</b>	<b>acre</b>	<b>RECLAIMED - INSPECT FOR RELEASE</b>	
<u>Structural Removal</u>	<u># units</u>	<u>units</u>	<u>\$/unit</u>	<u>\$</u>
50 ton crane+operator+oiler	0	hrs	244.21	0
2 laborers @ 15 hrs/each	0	hrs	35.00	0
welder (equip)+welder+helper	0	hrs	111.74	0
electrician	0	hrs	49.35	0
pickup truck	0	hrs	22.08	0
<u>Earthwork &amp; Grading</u>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<u>Capping</u>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<u>Revegetation</u>				
tractor + drill + operator	1.24	acre	83.45	103
seed mix	1.24	acre	160.00	198
fertilizer @ 200 lb/acre	1.24	acre	100.00	124
Subtotal for this site				\$6,751
Avg. cost per acre		\$5,445		

<b>COTTONWOOD 3</b>	<b>1.50</b>	<b>acre</b>	<b>RECLAIMED - INSPECT FOR RELEASE</b>	
<u>Structural Removal</u>	<u># units</u>	<u>units</u>	<u>\$/unit</u>	<u>\$</u>
50 ton crane+operator+oiler	0	hrs	244.21	0
2 laborers @ 15 hrs/each	0	hrs	35.00	0
welder (equip)+welder+helper	0	hrs	111.74	0
electrician	0	hrs	49.35	0
pickup truck	0	hrs	22.08	0
<u>Earthwork &amp; Grading</u>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<u>Capping</u>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<u>Revegetation</u>				
tractor + drill + operator	1.5	acre	83.45	125
seed mix	1.5	acre	160.00	240
fertilizer @ 200 lb/acre	1.5	acre	100.00	150
Subtotal for this site				\$6,841
Avg. cost per acre		\$4,561		

<b>COWBOY 1 FEDERAL</b>	<b>3.3</b>	<b>acre</b>		
<b>Structural Removal</b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
electrician	20	hrs	49.35	987
pickup truck	10	hrs	22.08	221
<b>Earthwork &amp; Grading</b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809
<b>Capping</b>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<b>Revegetation</b>				
tractor + drill + operator	3.3	acre	83.45	275
seed mix	3.3	acre	160.00	528
fertilizer @ 200 lb/acre	3.3	acre	100.00	330
Subtotal for this site				\$13,276
Avg. cost per acre		\$4,023		

<b>COWBOY - LOTS 2-1</b>	<b>1</b>	<b>acre</b>	<b>PATENTED - OPEN CUT</b>	
<b>Structural Removal - NONE</b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	0	hrs	244.21	0
2 laborers @ 15 hrs/each	0	hrs	35.00	0
welder (equip)+welder+helper	0	hrs	111.74	0
electrician	0	hrs	49.35	0
pickup truck	10	hrs	22.08	221
<b>Earthwork &amp; Grading</b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	0	hrs	96.83	0
dump truck & operator	15	hrs	90.88	1,363
backhoe & operator	15	hrs	87.97	1,320
dozer & operator	12	hrs	226.10	2,713
<b>Capping</b>				
concrete (in CY)	10	CY	90.00	900
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	2	sum	250.00	500
rebar (SUM)	2	sum	100.00	200
<b>Revegetation</b>				
tractor + drill + operator	1	acre	83.45	83
seed mix	1	acre	160.00	160
fertilizer @ 200 lb/acre	1	acre	100.00	100
Subtotal for this site				\$8,610
Avg. cost per acre		\$8,610		

COWBOY SECTIONS 4-3	1	acre	PATENTED - OPEN CUT	
<u>Structural Removal - NONE</u>	<u># units</u>	<u>units</u>	<u>\$/unit</u>	<u>\$</u>
50 ton crane+operator+oiler	0	hrs	244.21	0
2 laborers @ 15 hrs/each	0	hrs	35.00	0
welder (equip)+welder+helper	0	hrs	111.74	0
electrician	0	hrs	49.35	0
pickup truck	40	hrs	22.08	883

Earthwork & Grading - OPEN CUT

front end loader & operator	50	hrs	110.18	5,509
motor grader & operator	0	hrs	96.83	0
dump truck & operator	10	hrs	90.88	909
backhoe & operator	100	hrs	87.97	8,797
dozer & operator	0	hrs	226.10	0

Capping -OPEN CUT

concrete (in CY)	167	CY	90.00	15,030
2 laborers @ 15 hrs/each	160	hrs	35.00	5,600
forms, etc. (SUM)	27	sum	250.00	6,750
rebar (SUM)	25	sum	100.00	2,500

Revegetation

tractor + drill + operator	1	acre	83.45	83
seed mix	1	acre	160.00	160
fertilizer @ 200 lb/acre	1	acre	100.00	100

Subtotal for this site \$46,321

Avg. cost per acre \$46,321

COWBOY NORTH VEIN - 1	2	acre	BLM BOND VERIFY ACREAGE	
<u>Structural Removal</u>	<u># units</u>	<u>units</u>	<u>\$/unit</u>	<u>\$</u>
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
electrician	20	hrs	49.35	987
pickup truck	10	hrs	22.08	221

Earthwork & Grading

front end loader & operator	0	hrs	110.18	0
motor grader & operator	10	hrs	96.83	968
dump truck & operator	10	hrs	90.88	909
backhoe & operator	10	hrs	87.97	880
dozer & operator	8	hrs	226.10	1,809

Capping

concrete (in CY)	25	CY	90.00	2,250
2 laborers @ 15 hrs/each	40	hrs	35.00	1,400
forms, etc. (SUM)	5	sum	250.00	1,250
rebar (SUM)	5	sum	100.00	500

Revegetation

tractor + drill + operator	2	acre	83.45	167
seed mix	2	acre	160.00	320
fertilizer @ 200 lb/acre	2	acre	100.00	200

Subtotal for this site \$16,470

Avg. cost per acre \$8,235

<b>ZI-95-1</b>	<b>4.55</b>	<b>acre</b>	<b>NEED INSPECTION TO VERIFY CONDITIONS</b>	
<b><u>Structural Removal</u></b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	10	hrs	244.21	2,442
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
welder (equip)+welder+helper	10	hrs	111.74	1,117
electrician	20	hrs	49.35	987
pickup truck	10	hrs	22.08	221
<b><u>Earthwork &amp; Grading</u></b>				
front end loader & operator	0	hrs	110.18	0
motor grader & operator	25	hrs	96.83	2,421
dump truck & operator	10	hrs	90.88	909
backhoe & operator	0	hrs	87.97	0
dozer & operator	25	hrs	226.10	5,653
<b><u>Capping</u></b>				
concrete (in CY)	4	CY	90.00	360
2 laborers @ 15 hrs/each	30	hrs	35.00	1,050
forms, etc. (SUM)	1	sum	250.00	250
rebar (SUM)	1	sum	100.00	100
<b><u>Revegetation</u></b>				
tractor + drill + operator	4.55	acre	83.45	380
seed mix	4.55	acre	160.00	728
fertilizer @ 200 lb/acre	4.55	acre	100.00	455
Subtotal for this site				\$18,122
Avg. cost per acre		\$3,983		

<b>PROCESSING FACILITIES</b>	<b>19.20</b>	<b>acre</b>		
<b><u>Structural Removal</u></b>	<b># units</b>	<b>units</b>	<b>\$/unit</b>	<b>\$</b>
50 ton crane+operator+oiler	40	hrs	244.21	9,768
2 laborers @ 15 hrs/each	80	hrs	35.00	2,800
welder (equip)+welder+helper	20	hrs	111.74	2,235
electrician	40	hrs	49.35	1,974
pickup truck	80	hrs	22.08	1,766
<b><u>Earthwork &amp; Grading</u></b>				
front end loader & operator	30	hrs	110.18	3,305
motor grader & operator	30	hrs	96.83	2,905
dump truck & operator	60	hrs	90.88	5,453
backhoe & operator	20	hrs	87.97	1,759
dozer & operator	30	hrs	226.10	6,783
<b><u>Revegetation</u></b>				
tractor + drill + operator	19.2	acre	83.45	1,602
seed mix	19.2	acre	160.00	3,072
fertilizer @ 200 lb/acre	19.2	acre	100.00	1,920
Subtotal for this site				\$45,343
Avg. cost per acre		\$2,362		

<b><u>Project Supervision</u></b>	500	48.25	\$24,125
<b><u>Mobilization</u></b>	8	1,000	\$8,000

**RECLAMATION SUMMARY ZIEGLER M/047/013**

12-Apr-01

	SL BOND	\$	ACRES
Independent 2		12,624	1.40
Independent 3		6,800	1.38
Independent 4		8,150	1.41
Independent 5	SL BOND \$5,000      1,050	12,555	1.20
Little Bonanza 1		3,975	0.50
Little Bonanza 3		12,534	1.14
Little Bonanza 8		12,692	1.60
Little Bonanza 8a		6,669	1.00
Little Bonanza 11		12,490	1.01
Little Bonanza 12		12,662	1.51
Main #1		6,669	1.00
Main #2		4,909	1.00
Little Emma 1		12,521	1.10
Little Emma - 7		6,703	1.10
Cottonwood 1 & 2	SL BOND \$5,000      360	6,751	1.24
Cottonwood 3	SL BOND \$7,500      1,050	6,841	1.50
Cowboy 1 - Federal		13,276	3.30
Cowboy Lots 2-1		8,610	1.00
Cowboy sections 4-3		46,321	1.00
Cowboy North Vein 1		16,470	2.00
ZI-95-1		18,122	4.55
Processing facilities		45,343	19.20
Project supervision		24,125	NA
Mobilization		8,000	NA
subtotal		325,813	
Add 10% contingency		32,581	
subtotal		358,395	
Add 5 yrs escalation @ 3.12%		59,509	
TOTAL		417,903	

**ROUNDED TOTAL IN 2006 - \$**

**\$417,900 DRAFT**

total acreage = 50.14

overall avg. cost per acre = \$8,335